

What is claimed is:

1.               A method of making a lead-free bearing comprising:  
  
                  applying powder metal bearing material to a steel backing, the bearing material having a composition consisting essentially of 8 to 12% by weight of tin, 1 to less than 5% by weight of bismuth, .03 to .08% by weight of phosphorus, and the balance consisting essentially of copper; and  
  
                  rolling and sintering the powder metal bearing material onto the backing to bond the bearing material to the backing and to fully densify the bearing material.
2.               The method of claim 1, including installing the bearing in use and applying friction and load forces to an exposed bearing surface of the bearing material, causing tin from a copper-tin matrix of the bearing material to migrate to the bearing surface to yield a tin-rich layer with the bearing surface.